

new and previously unrecorded magnetic tape stock and blank optical media (e.g., DVD and CD), for original copies of permanent, long-term temporary, or unscheduled recordings. Limit the use of consumer formats to distribution or reference copies or to subjects scheduled for destruction. Avoid using videocassettes in the VHS format for use as originals of permanent or unscheduled records.

(d) Record permanent, long-term, temporary, or unscheduled audio recordings on optical media from major manufacturers. Avoid using cassettes as originals for permanent records or unscheduled records (although they may be used as reference copies).

(e) For born-digital or scanned digital images that are scheduled as permanent or unscheduled, a record (or master) version of each image must be comparable in quality to a 35 mm film photograph or better, and must be saved in Tagged Image File Format (TIFF) or JPEG File Interchange Format (JFIF, JPEG). For more detailed requirements on image format and resolution, see § 1235.48(e) of this subchapter. For temporary digital photographs, agencies select formats that they deem most suitable for fulfillment of business needs.

**§ 1237.28 What special concerns apply to digital photographs?**

Digital photographs, either originating in digital form (“born-digital”) or scanned from photographic prints, slides, and negatives, are subject to the provisions of this part and the requirements of 36 CFR part 1236, and NARA guidance for transfer of digital photographs located on the following NARA Web page—<http://www.archives.gov/records-mgmt/initiatives/digital-photos-records.html>. In managing digital photographs, agency and contractor personnel must:

(a) Schedule digital photographs and related databases as soon as possible for the minimum time needed for agency business and transfer the records promptly according to the disposition instructions on their records schedule.

(b) Select image management software and hardware tools that will meet long-term archival requirements, including transfer to the National Ar-

chives of the United States, as well as business needs. Additional information and assistance is available from the National Archives and Records Administration, Modern Records Program (NWM), 8601 Adelphi Road, College Park, MD 20740, phone number (301) 837-1738.

(c) When developing digital image storage strategies, build redundancy into storage systems, backing up image files through on-line approaches, off-line, or combinations of the two. (See also electronic storage requirements in § 1236.28 of this subchapter).

(d) For scanned digital images of photographic prints, slides, and negatives that are scheduled as permanent or unscheduled, document the quality control inspection process employed during scanning.

(1) Visually inspect a sample of the images for defects, evaluate the accuracy of finding aids, and verify file header information and file name integrity.

(2) Conduct the sample using a volume sufficiently large to yield statistically valid results, in accordance with one of the quality sampling methods presented in ANSI/AIIM TR34 (incorporated by reference, see § 1237.3). (See also ISO 2859-1 (incorporated by reference, see § 1237.3).)

(e) For born-digital images scheduled as permanent, long-term temporary, or unscheduled, perform periodic inspections, using sampling methods or more comprehensive verification systems (e.g., checksum programs), to evaluate image file stability, documentation quality, and finding aid reliability. Agencies must also establish procedures for refreshing digital data (re-copying) and file migration, especially for images and databases retained for five years or more.

(f) Designate a record set of images that is maintained separately from other versions. Record sets of permanent or unscheduled images that have already been compressed once (e.g., compressed TIFF or first-generation JPEG) must not be subjected to further changes in image size.

(g) Organize record images in logical series. Group permanent digital images separately from temporary digital images.

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(h) Document information about digital photographic images as they are produced. For permanent or unscheduled images descriptive elements must include:

- (1) An identification number;
  - (2) Information about image content;
  - (3) Identity and organizational affiliation of the photographer;
  - (4) Existence of any copyright or other potential restrictions on image use; and
  - (5) Technical data including file format and version, bit depth, image size, camera make and model, compression method and level, custom or generic color profiles (ICC/ICM profile), and, where applicable, Exchangeable Image File Format (EXIF) information embedded in the header of image files by certain digital cameras.
- (i) Provide a unique file name to identify the digital image.
- (j) Develop finding aids sufficiently detailed to ensure efficient and accurate retrieval. Ensure that indexes, caption lists, and assignment logs can be used to identify and chronologically cut-off block of images for transfer to the NARA.

### § 1237.30 How do agencies manage records on nitrocellulose-base and cellulose-acetate base film?

(a) The nitrocellulose base, a substance akin to gun cotton, is chemically unstable and highly flammable. Agencies must handle nitrocellulose-base film (used in the manufacture of sheet film, 35 mm motion pictures, aerial and still photography into the 1950s) as specified below:

- (1) Remove nitrocellulose film materials (e.g., 35mm motion picture film and large series of still pictures) from records storage areas.
- (2) Notify the National Archives and Records Administration, Modern Records Program (NWM), 8601 Adelphi Road, College Park, MD 20740, phone number (301) 837-1738, about the existence of nitrocellulose film materials for a determination of whether they may be destroyed or retained after a copy is made by the agency for transfer to NARA. If NARA appraises nitrate film materials as disposable and the agency wishes to retain them, the agency must follow the standard NFPA

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40-2007 (incorporated by reference, see § 1237.3).

(3) Follow the packing and shipping of nitrate film as specified in Department of Transportation regulations (49 CFR 172.101, Hazardous materials table; 172.504, Transportation; 173.24, Standard requirements for all packages; and 173.177, Motion picture film and X-ray film—nitrocellulose base).

(b) Agencies must inspect cellulose-acetate film periodically for an acetic odor, wrinkling, or the presence of crystalline deposits on the edge or surface of the film that indicate deterioration. Agencies must notify the National Archives and Records Administration, Modern Records Program (NWM), 8601 Adelphi Road, College Park, MD 20740, phone number (301) 837-1738, immediately after inspection about deteriorating permanent or unscheduled audiovisual records composed of cellulose acetate so that they can be copied by the agency prior to transfer of the original and duplicate film to NARA.

## PART 1238—MICROFORMS RECORDS MANAGEMENT

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